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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/816,816
Filing Date: March 22, 2001
Appellant(s): WIECHERS ET AL.

Steven R. Ormiston, Reg. No. 35,974

For Appellant

EXAMINER'S ANSWER

This is in response to the Appeal Brief filed 09/08/2006 appealing from the Office action mailed 10/31/2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,466,336	Sturgeon et al.	10-2002
6,735,335	Liu et al.	05-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless →

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 23-26 and 30-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Sturgeon et al., U.S. Patent No. 6,466,336.

Claim 23:

Sturgeon discloses *a method for providing information corresponding to a scanned document* (see Column 1, Lines 6-12; see Column 2, Lines 16-45 → Sturgeon discloses this limitation in that the document handling system analyzes and organizes scanned pages to detect erroneously fed or scanned pages and notify a user of those pages), *comprising:*

- *enabling selection of a characteristic of a page of the document* (**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*characteristic of a page*" to be a page number. This interpretation corresponds to the present invention, as described in the Specification, which states that "a registration

characteristic may include a **page number**" (emphasis added) (see Page 5, Lines 9-10). In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system permits the user to identify a page designation (e.g., a page number) through a user interface);

- *scanning a page of the document* (see Figure 1; see Column 1, Lines 6-12 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text);
- *reviewing the scanned page for the selected characteristic* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system reviews the page for the page designation selected and entered by the user); and
- *based on the act of reviewing, determining if the scanned page is properly aligned for scanning* (**EXAMINER'S INTERPRETATION** → The examiner interprets the phrase "*properly aligned for scanning*" to mean that a determination is made as to whether a registration characteristic for a scanned page **corresponds with** a user-selected registration characteristic. This interpretation corresponds to the present invention, as described in the Specification, which states that "For instance, if, during the review of a page, it is determined that the registration characteristic of that page **does not correspond**, e.g., **is not properly aligned**, with the selected registration characteristic, correction of the page may be facilitated" (emphasis added) (see Page 6, Lines 8-11). As indicated in the above discussion, "registration characteristics" comprise page

numbers. In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system identifies missing or misfed pages, based upon the page designation).

Claim 24:

Sturgeon discloses *the method of Claim 23, further comprising repeating scanning, reviewing and determining for each page of the document* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system allows a user to individually feed the pages of a document into the scanner, thereby allowing the user to: 1) identify a page designation for each page through a user interface, 2) review the page for the page designation selected and entered by the user, and 3) identify a misfed or missing page based upon the page designation).

Claim 25:

Sturgeon discloses *the method of Claim 23, further comprising designating the scanned page for review if it is determined that the scanned page is not properly aligned for scanning* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system flags missing or misfed pages).

Claim 26:

Sturgeon discloses *the method of Claim 23, wherein:*

- *reviewing the scanned page for a selected characteristic comprises determining if the scanned page exhibits the selected characteristic (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system determines whether the page includes the page designation selected by the user); and*
- *determining if the scanned page is properly aligned for scanning comprises determining that the scanned page is not properly aligned if it is determined that the scanned page does not exhibit the selected characteristic (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system flags the page if no page designation is located).*

Claims 30-33:

Claims 30-33 merely recite computer software for performing the method recited in Claims 23-26, respectively. The document handling system in Sturgeon comprises computer software. Thus, Sturgeon discloses every limitation of Claims 30-33, as indicated in the above rejections for Claims 23-26.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 6-17, 19-22, 27-29 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sturgeon, in view of Liu et al., U.S. Patent No. 6,735,335.

Claim 1:

Sturgeon discloses *a document processing system for providing information corresponding to a scanned document* (see Column 1, Lines 6-12; see Column 2, Lines 16-45 → Sturgeon discloses this limitation in that the document handling system analyzes and organizes scanned pages to detect erroneously fed or scanned pages and notify a user of those pages), *said document processing system comprising:*

- *a scan review system configured for receiving scan information corresponding to a scanned document* (see Figure 1; see Column 1, Lines 6-12 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text), *said scan review system being configured to enable selection of a registration characteristic of a page of a document to be scanned* (**EXAMINER'S**

INTERPRETATION → The examiner interprets the phrase "*characteristic of a page*" to be a page number. This interpretation corresponds to the present invention, as described in the Specification, which states that "a registration characteristic may include a page number" (emphasis added) (see Page 5,

Lines 9-10). In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system permits the user to identify a page designation (e.g., a page number) through a user interface), *review of image data corresponding to the scanned pages of the document relative to the selected registration characteristic* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system reviews the scanned page for the page designation selected and entered by the user), *and, based on the review, determine if pages of the document are properly aligned for scanning*

(EXAMINER'S INTERPRETATION → The examiner interprets the phrase "*properly aligned for scanning*" to mean that a determination is made as to whether a registration characteristic for a scanned page **corresponds with** a user-selected registration characteristic. This interpretation corresponds to the present invention, as described in the Specification, which states that "For instance, if, during the review of a page, it is determined that the registration characteristic of that page **does not correspond, e.g., is not properly aligned**, with the selected registration characteristic, correction of the page may be facilitated" (emphasis added) (see Page 6, Lines 8-11). As indicated in the above discussion, "registration characteristics" comprise page numbers. In **Sturgeon**, see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the

document handling system identifies missing or misfed pages, based upon the page designation) *such that, in response to identifying a page of the document as not being properly aligned for scanning, said scan review system designates the page for review* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system flags missing or misfed pages); *and*

- *a scanner communicatively coupled to said scan review system, said scanner being configured to receive the document to be scanned and convert printed information of each page of the document into scan information, the scan information being provided in an electronic format to said scan review system* (see Figure 1; see Column 3, Lines 21-27 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text).

Sturgeon fails to expressly disclose:

- *a registration characteristic that is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin,*

Liu teaches *a document processing system for providing information corresponding to a scanned document* (see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text), *said document processing system comprising:*

- *a scan review system configured for receiving scan information corresponding to a scanned document (see Figure 2), said scan review system being configured to enable selection of a registration characteristic of a page of a document to be scanned and review of image data corresponding to the scanned pages of the document relative to the selected registration characteristic (see Column 3, Lines 27-34; see Column 6, Line 55 through Column 9, Line 65 → Liu teaches this limitation in that the document handling system performs an analysis of scanned pages and compares attributes of the scanned pages),*
wherein the registration characteristic is at least one of top line, top margin, bottom line, bottom margin, left margin or right margin (see Column 6, Line 55 through Column 9, Line 65 → Liu teaches this limitation in that the analysis and comparison performed by the document handling system verifies the sizes of the margins on the scanned pages),
for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document (see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sturgeon, to include:

- *a registration characteristic that is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin,*
for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 3:

Sturgeon discloses *the document processing system of Claim 1, wherein said scan review system is configured to provide a graphical user interface, said graphical user interface being configured to enable selection of the registration characteristic* (see Figure 1; see Column 3, Lines 21-27; see Column 3, Lines 50-56; see Column 4, Lines 62-67 → Sturgeon discloses this limitation in that the document handling system includes a scanner with a user interface for inputting instructions for performing the batch scanning job. Also, the computer system includes a monitor, keyboard and mouse for “receiving data representative of both operational instructions or parameters,” as expressly disclosed in Sturgeon. This disclosure implies that the document handling system includes a “*graphical user interface*.”).

Claim 4:

Sturgeon discloses *the document processing system of Claim 1, wherein said scan review system comprises means for enabling selection of the registration characteristic* (Sturgeon discloses this limitation, as indicated in the above rejections for Claims 1 and 3).

Claim 6:

Sturgeon discloses *the document processing system of Claim 3, wherein said scan review system is configured to determine a page number of each page of a document to be scanned and to designate scan information corresponding to pages of*

the document that are not scanned in page order (see Column 8, Line 15 through Column 9, Line 35 → Sturgeon discloses this limitation in that the document handling system locates the page number for each page and employs optical character recognition to flag missing or misfed pages).

Claim 7:

Sturgeon discloses the document processing system of Claim 3, wherein said scan review system comprises:

- means for determining a page number of each page of a document to be scanned; and*
- means for designating scan information corresponding to pages of the document that are not scanned in page order (Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6).*

Claim 8:

Sturgeon discloses the document processing system of Claim 3, wherein said scan review system is configured to generate two files associated with each page of a document to be scanned, a first of said files containing page content information and a second of the files containing page number information, said scan review system being further configured to utilize the page number information to arrange the page content information in page number order (Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6. Also, the document handling system discloses a "first

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file containing page content information" in that it includes the scanned digital image of the page and a "*second file containing number information*" in that it includes a text file created through optical character recognition. Finally, the document handling system collates the scanned pages – see Column 9, Lines 14-35).

Claim 9:

Sturgeon discloses *the document processing system of Claim 3, wherein said scan review system is embodied on a computer readable medium* (see Column 3, Lines 21-45; see Column 4, Lines 53-67 → Sturgeon discloses this limitation, as clearly indicated in the cited text).

Claim 10:

Sturgeon discloses *the document processing system of Claim 3, wherein said graphical user interface provides a page viewing window configured to display therein scan information corresponding to a page of the document to be scanned* (see Column 9, Lines 36-49 → Sturgeon discloses this limitation in that the document handling system allows the user to view the scanned document).

Claim 11:

Sturgeon discloses *the document processing system of Claim 9, wherein said scan review system comprises logic configured to designate pages of the document that*

were not scanned in page order (Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6).

Claim 12:

Sturgeon discloses *the document processing system of Claim 10, wherein said graphical user interface is configured to provide an operator with information indicating the pages of the document that were not scanned in page order* (Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6).

Claim 13:

Sturgeon discloses *the document processing system of Claim 10, wherein said graphical user interface provides a page number field, said page number field being moveable by an operator about said page viewing window such that a location corresponding to a page number of a page to be scanned may be designated, and wherein said scan review system is configured to process scan information located in a vicinity of said page number field to determine the page number of the page* (see Column 6, Line 54 through Column 7, Line 30; see Column 8, Lines 15-24 → Sturgeon discloses this limitation in that the document handling system allows the user to input possible locations of page numbers and locates the page numbers through optical character recognition).

Claim 21:

Sturgeon fails to expressly disclose:

- *a graphical user interface that is configured to enable an operator to position the registration characteristic selected such that the scan review system compares a position of a document for scanning relative to the position of the registration characteristic selected.*

Liu teaches:

- *a graphical user interface that is configured to enable an operator to position the registration characteristic selected such that the scan review system compares a position of a document for scanning relative to the position of the registration characteristic selected (see Column 5, Lines 7-45 → Liu teaches this limitation in that the document handling system allows the user to define a threshold value for a particular attribute. During the analysis of the scanned documents, the selected attribute for each scanned document will be compared to the threshold value. In this way, the operator "positions the registration characteristic" so that the scanned document is compared to the set position),*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document (see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system, disclosed in Sturgeon, to include:

- *a graphical user interface that is configured to enable an operator to position the registration characteristic selected such that the scan review system compares a position of a document for scanning relative to the position of the registration characteristic selected,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 14:

Sturgeon discloses *a method for providing information corresponding to a scanned document* (Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1), *comprising:*

- *enabling selection of a registration characteristic of a page of the document* (Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1);
- *reviewing pages of the document relative to the selected registration characteristic* (Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1);

- *based on the act of reviewing, determining if pages of the document are properly aligned for scanning* (Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1); *and*
- *enabling receipt of scan information corresponding to the pages of the document* (Sturgeon discloses this limitation, as indicated in the above rejection for Claim 2).

Sturgeon fails to expressly disclose:

- *a registration characteristic, wherein the registration characteristic is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin.*

Liu teaches *a document processing method for providing information corresponding to a scanned document* (see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text), *said method comprising:*

- *enabling selection and review of a registration characteristic of a page of a document* (see Column 3, Lines 27-34; see Column 6, Line 55 through Column 9, Line 65 → Liu teaches this limitation in that the document handling system performs an analysis of scanned pages and compares attributes of the scanned pages),

wherein the registration characteristic is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin (see Column 3, Lines 27-34; see Column 7,

Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the analysis and comparison performed by the document handling system verifies the sizes of the margins on the scanned pages), for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document → see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *a registration characteristic that is at least one of top line, top margin, bottom line, bottom margin, left margin and right margin,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 15:

Sturgeon discloses *the method of Claim 14, wherein determining comprises identifying pages not properly exhibiting the selected registration characteristic* (Sturgeon discloses this limitation, as indicated in the above rejection for Claim 1).

Claim 16:

Sturgeon discloses *the method of Claim 14, further comprising:*

- *determining whether a current page of the document to be scanned corresponds to an expected page number; and*
- *if the current page number does not correspond to the expected page number, designating the current page for review (Sturgeon discloses these limitations, as indicated in the above rejection for Claim 6).*

Claim 17:

Sturgeon discloses *the method of Claim 14, further comprising preparing an e-file corresponding to the document to be scanned (see Column 4, Lines 41-52 → Sturgeon discloses this limitation in that the document handling system stores the scanned documents in an archive).*

Claim 19:

Sturgeon discloses *the method of Claim 17, wherein preparing an e-file comprises the steps of:*

- *generating, for each page scanned, a first file containing page content information;*
- *generating, for each page scanned, a second file containing page number information, each second file being associated with a respective first file; and*

- *utilizing the second files so as to arrange the page content information of the first files in page number order* (Sturgeon discloses these limitations, as indicated in the above rejection for Claim 8).

Claim 20:

Sturgeon discloses *the method of Claim 19, further comprising:*

- *identifying pages missing from the e-file* (see Column 2, Lines 23-28 → Sturgeon discloses this limitation in that the document handling system flags missing pages in a batch job);
- *scanning the missing pages* (see Column 2, Lines 28-29 → Sturgeon discloses this limitation in that the document handling system allows the user to rescan any missing pages); *and*
- *providing page content information associated with the missing pages to the e-file such that the page content information is arranged in page number order* (see Column 2, Lines 30-32 → Sturgeon discloses this limitation in that the document handling system automatically places all scanned pages in the proper order).

Claim 22:

Sturgeon fails to expressly disclose:

- *enabling an operator to position the registration characteristic selected such that a position of a document for scanning can be compared to the position of the registration characteristic selected.*

Liu teaches:

- *enabling an operator to position the registration characteristic selected such that a position of a document for scanning can be compared to the position of the registration characteristic selected.* (see Column 5, Lines 7-45 → Liu teaches this limitation in that the document handling system allows the user to define a threshold value for a particular attribute. During the analysis of the scanned documents, the selected attribute for each scanned document will be compared to the threshold value. In this way, the operator “positions the registration characteristic” so that the scanned document is compared to the set position.), for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document (see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *enabling an operator to position the registration characteristic selected such that a position of a document for scanning can be compared to the position of the registration characteristic selected,* for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 27:

As indicated in the above rejection, Sturgeon discloses every limitation of Claim 23.

Sturgeon fails to expressly disclose:

- *enabling selection of one or more of a position of a top line or a bottom line of the page, or a size of a top margin, bottom margin, left margin or right margin of the page.*

Liu teaches *a method for providing information corresponding to a scanned document* (see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text), *comprising:*

- *enabling selection of one or more of a position of a top line or a bottom line of a page, or a size of a top margin, bottom margin, left margin or right margin of a page* (see Column 3, Lines 27-34; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system performs an analysis of scanned pages and compares attributes of the scanned pages to verify the sizes of the margins on the scanned pages),

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document (see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *enabling selection of one or more of a position of a top line or a bottom line of the page, or a size of a top margin, bottom margin, left margin or right margin of the page,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

Claim 28:

Sturgeon discloses *a method for providing information corresponding to a scanned document, comprising:*

- *enabling selection of a characteristic of a page of the document* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system permits the user to identify a page designation through a user interface);
- *scanning a page of the document* (see Figure 1; see Column 1, Lines 6-12 → Sturgeon discloses this limitation, as clearly indicated in the cited figure and text);
- *reviewing the scanned page for a selected characteristic* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 →

Sturgeon discloses this limitation in that the document handling system reviews the page for the page designation selected and entered by the user); *and*

- *based on the act of reviewing, determining if the scanned page is properly aligned for scanning* (see Figures 1-4; see Column 2, Lines 16-45; see Column 8, Line 15 through Column 9, Line 13 → Sturgeon discloses this limitation in that the document handling system identifies a misfed page based upon the page designation).

Sturgeon fails to expressly disclose:

- *a **margin** characteristic.*

Liu teaches *a method for providing information corresponding to a scanned document* (see Column 1, Line 66 through Column 2, Line 30 → Liu teaches this limitation, as clearly indicated in the cited text), *comprising*:

- *determining a margin characteristic of a page of the document* (see Column 1, Line 66 through Column 2, Line 30; see Column 3, Lines 27-34; see Column 4, Line 48 through Column 6, Line 35; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system determines a margin attribute of a scanned page);
- *scanning a page of the document* (see Figure 2 → Liu teaches this limitation, as clearly indicated in the cited figure);

- *reviewing scanned pages for the **margin** characteristic* (see Column 1, Line 66 through Column 2, Line 30; see Column 3, Lines 27-34; see Column 4, Line 48 through Column 6, Line 35; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system reviews scanned pages and compares the margin attributes of the scanned pages to previous scanned pages); *and*
- *determining that the scanned page is not properly aligned if the scanned page does not exhibit the **margin** characteristic* (see Column 1, Line 66 through Column 2, Line 30; see Column 3, Lines 27-34; see Column 4, Line 48 through Column 6, Line 35; see Column 7, Lines 12-31; see Column 8, Lines 37-49 → Liu teaches this limitation in that the document handling system inserts page breaks where the margin attributes of succeeding pages do not compare favorably),

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document (see Column 7, Lines 55-62).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Sturgeon, to include:

- *a **margin** characteristic,*

for the purpose of, in a batch scanning process, determining whether scanned pages belong to the same document, as taught by Liu.

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Claim 29:

As indicated in the above rejection for Claim 24, Sturgeon discloses *repeating scanning, reviewing and determining for each page of the document*.

Claims 34-36:

Claims 34-36 merely recite computer software for performing the method recited in Claims 27-29, respectively. Thus, Sturgeon, in view of Liu, discloses/teaches every limitation of Claims 34-36, as indicated in the above rejections for Claims 27-29.

(10) Response to Argument

Ground No. 1 – Sturgeon does not teach determining if a page is properly aligned for scanning (all pending claims):

Appellant argues that there is no teaching in Sturgeon that page designations (or any other page characteristic) are used to determine that a page is or is not properly aligned for scanning because “*determining if the scanned page was properly aligned for scanning*” (see Claim 23, Lines 6-7) does not mean determining inconsistencies in the orientation of pages in a scanned document (Sturgeon column 6, lines 37-53) or comparing the total number of pages scanned with a desired or anticipated number of pages (Sturgeon column 8, Lines 49-52) or determining any correspondence for a characteristic of a page of a document other than the correspondence of alignment. Thus, Appellant argues, Sturgeon does not teach every element of Claims 23 and 30. Similarly, Appellant argues, the combination of Sturgeon and Liu does not teach or suggest all of the limitations of Claims 1, 14, 28 and 35. See *Brief* – Page 6.

The examiner disagrees.

The disputed claim language reads:

A method for providing information corresponding to a scanned document, comprising:

- *enabling selection of a **characteristic of a page** of the document;*
- *scanning a page of the document;*
- *reviewing the scanned page **for the selected characteristic**; and*
- *based on the act of reviewing, **determining if the scanned page is properly aligned for scanning.***

(see Claim 23 – emphasis added).

During patent examination, the pending claims must be “given their broadest reasonable interpretation consistent with the specification.” The Federal Circuit’s *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) expressly recognized that the USPTO employs the “broadest reasonable interpretation” standard:

“The Patent and Trademark Office (“PTO”) determines the scope of claims in patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.”

In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364[, 70 USPQ2d 1827] (Fed. Cir. 2004). Indeed, the rules of the PTO require that application claims must “conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.” 37 CFR 1.75(d)(1).

415 F.3d at 1316, 75 USPQ2d at 1329. See also *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000).

The disputed claim language is discussed in the Specification at Page 5, Line 7 through Page 6, Line 17, which reads:

As depicted in FIG. 2, the document processing system or method 10 may be construed as beginning at block 202 where selection of a **registration characteristic** is enabled. By way of example, **such a registration characteristic may include page number**, top line, bottom line, left side margin, right side margin, **or any other feature(s) of a page to be scanned *that may be utilized for determining proper alignment of the page relative to the scanner***. In block 204, review of the page(s) to be scanned relative to the selected registration characteristic may be facilitated. For instance, assuming that the registration characteristic of the top line has been selected, review of the

pages to be scanned may include determining whether the top line of each page is appropriately positioned for scanning, e.g., whether the top line of each page is properly positioned relative to one or more components of the scanner so that a proper scanned image corresponding to the page may be acquired.

Determining whether a page is properly registered relative to a scanner **may become increasingly important as multiple pages are to be scanned.** More specifically, if a page is not properly registered, **the ability of the scanner to acquire image data from the page may be inhibited as a portion of the printed information may not be viewable (acquirable) by the scanner. Such a situation may occur when the page is not properly provided to the scanning portion or bed of the scanner by an automatic document feeder (ADF), for example.** When multiple pages are to be consecutively scanned, improper page registration may lead to improper image acquisition of multiple pages, and/or may be a precursor to a malfunction, such as a paper jam of the ADF or ADF equipment failure, for example.

Proceeding to block 206, correction of the page(s) not properly exhibiting the selected registration characteristic is enabled. For instance, if, during the review of a page, it is determined that the registration characteristic of that page does not correspond, e.g., is **not properly aligned, with the selected registration characteristic**, correction of the page may be facilitated. In some embodiments, **enabling correction of the page(s) may include providing an operator with an indication that the page(s) is not properly registered.**

Thus, in response to receiving such notification, the operator may attempt to properly register the page at that time so that the scanning process may continue. In other embodiments, **the scanning process may continue, e.g., scanning of subsequent pages may be initiated, and the improperly registered page may be designated for review and/or scanning at a later time.**

(emphasis added).

Giving the claims their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art (i.e., a computer programmer who writes code for document scanning systems) results in a determination that Sturgeon discloses the disputed claim language, as indicated in the following discussion.

The Specification of the present invention expressly states that the “registration characteristic” may include page numbers, or any other features of a scanned page that may be utilized for determining proper alignment of the page relative to the scanner (see Specification – Page 5, Lines 9-12). This statement in the Specification expressly indicates that a **page number** may be utilized in “*determining if the scanned page was properly aligned for scanning,*” as recited in Claim 23.

Sturgeon discloses that the document handling system permits the user to identify a page designation (e.g., a page number) in a scan job through a user interface

and determines whether the scanned pages are “*properly aligned for scanning*” based on the detected page designations of the scanned pages (In **Sturgeon** – see Figures 3-6; see Column 6, Line 54 through Column 7, Line 30; see Column 8, Line 1 through Column 9, Line 13).

Accordingly, Sturgeon discloses the disputed claim language.

The Specification of the present invention also expressly states that determining whether a page is properly registered relative to a scanner may become increasingly important as multiple pages are scanned, because, if a page is not properly registered, the ability of the scanner to acquire image data from the page may be inhibited as a portion of the printed information may not be viewable by the scanner (see Specification – Page 5, Line 19 through Page 6, Line 1). The Specification further expressly states that, when multiple pages are to be consecutively scanned, improper page registration may lead to improper image acquisition of multiple pages (see Specification – Page 6, Lines 3-5).

These statements in the Specification would be interpreted by one of ordinary skill in the art (i.e., a computer programmer who writes code for document scanning systems) to indicate that, in a multiple-page scan job, **pages that are out of order, upside-down pages, and missing pages** are “not properly registered relative to the scanner” and therefore are not “*properly aligned*” for scanning, as recited in the disputed claim language.

Sturgeon discloses that the document handling system detects pages that are out of order in a scan job and automatically collates the pages into the proper order (In **Sturgeon** – see Column 7, Lines 10-30). Sturgeon also discloses that the document handling system detects pages that are not consistently oriented (e.g., upside-down pages) in a scan job and automatically reorients the inconsistently oriented pages using page-rotation software (In **Sturgeon** – see Column 6, Lines 34-53). Accordingly, Sturgeon discloses the disputed claim language. Sturgeon further discloses that the document handling system detects missing pages in a scan job by comparing the number of scanned pages to a desired number of pages specified by the user and alerts the user of the missing pages in the scan job (In **Sturgeon** – see Column 5, Line 54 through Column 6, Line 6).

Accordingly, Sturgeon discloses the disputed claim language.

The Specification of the present invention also expressly states that “if, during the review of a page, it is determined that the **registration characteristic** of that page **does not correspond, e.g., is not properly aligned, with the selected registration characteristic**, correction of the page may be facilitated” (emphasis added) (see Specification – Page 6, Lines 8-11). The Specification further expressly states that enabling correction may include either: 1) providing the user with an indication that the page is not properly registered, so that the user may properly register the page at that time; or 2) designating the improperly registered page for later review and/or scanning (see Specification – Page 6, Lines 8-11).

These statements expressly indicate that the system of the present invention determines whether the **registration characteristic of the scanned page** corresponds with, or **is *properly aligned with*, the selected registration characteristic**. Stated differently, the following question is answered by the system of the present invention: is the registration characteristic of the ***scanned*** page "*properly aligned*" with the ***user-selected*** registration characteristic? If the answer to this question is "no," then the scanned page is designated for user review.

Sturgeon discloses that the document handling system permits the user to input a page designation (e.g., a page number) in a scan job through a user interface (In **Sturgeon** – see Column 8, Lines 15-22) and subsequently determines whether the registration characteristic of the ***scanned*** page is "*properly aligned*" with the ***user-selected*** registration characteristic in that the system sets a flag to notify the user that no page number was found for the scanned page (In **Sturgeon** – see Column 8, Line 63 through Column 9, Line 4).

Accordingly, Sturgeon discloses the disputed claim language.

Appellant argument appears to be based upon the belief that the disputed claim language should be interpreted to mean that the determination involves determining whether the scanned page is skewed with respect to the scanner. However, the disputed claim language reads, "*determining if the scanned page was properly aligned for scanning*" (emphasis added) (e.g., see Claim 23, Lines 6-7). None of the claims in

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the present application recite “determining if the scanned page was properly aligned **with respect to the scanner.**”

The examiner notes that, even if the disputed claim language is interpreted in this way, the claims still read on Sturgeon in that the document handling system detects pages that are not consistently oriented (e.g., upside-down pages) in a scan job and automatically reorients the inconsistently oriented pages using page-rotation software (In **Sturgeon** – see Column 6, Lines 34-53). Also, detecting and correcting such a misalignment is well known in the art of computer-based copiers.

Ground No. 2 – Liu's layout attribute analyzer does not verify the size of the margins on a scanned page (Claims 1, 3-4, 6-17, 19-22, 27-29 and 34-36):

Appellant argues that Liu fails to teach a layout attribute analyzer that verifies the size of the margins on a scanned page because neither the term "margin" nor the term "margins" appears in Liu. Appellant also argues that it is pure speculation for the examiner to conclude that the "overlap areas" taught in Liu are the equivalent of the recited "margins." Appellant further argues the "overlap areas" taught in Liu include "line and text statistics" and are therefore not "margins" because margins are typically empty space. See *Brief* – Pages 7-8.

The examiner disagrees.

The disputed claim language reads:

A document processing system for providing information corresponding to a scanned document, said document processing system comprising:

- *a scan review system configured for receiving scan information corresponding to a scanned document, said scan review system being configured to enable selection of a registration characteristic of a page of a document to be*

*scanned, review of image data corresponding to the scanned pages of the document relative to the selected registration characteristic, and, based on the review, determine if pages of the document are properly aligned for scanning such that, in response to identifying a page of the document as not being properly aligned for scanning, said scan review system designates the page for review, **wherein the registration characteristic is at least one of: top line, top margin, bottom line, bottom margin, left margin or right margin;** and*

- *a scanner communicatively coupled to said scan review system, said scanner being configured to receive the document to be scanned and convert printed information of each page of the document into scan information, the scan information being provided in an electronic format to said scan review system.*

(see Claim 1 – emphasis added).

The disputed limitation reads “*wherein the registration characteristic is at least one of: top line, top margin, bottom line, bottom margin, left margin or right margin*” (see Claim 1, Lines 11-13). This limitation is not disclosed in Sturgeon. Thus, the rejections for all claims comprising this limitation are based on 35 U.S.C. 103, and Liu is

used to teach the disputed limitation and provide proper motivation to combine the teachings of Liu with the disclosure of Sturgeon.

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968); *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976). Thus, Liu need not comprise the terms "margin" or "margins" in order to teach the disputed limitation. Liu can and does teach the disputed limitation without using the words "margin" and "margins," as clearly indicated in the above rejections and explained in the following discussion.

Liu expressly teaches that the document handling system involves "general layout attributes" of scanned pages that are compared by measuring the overlap area between regions on separate pages and their size similarity. The system then judges the degree of overlap and size similarity between the regions of the separate pages to determine whether a sufficient degree of similarity or dissimilarity is shown (In **Liu** – see Column 8, Lines 50-58). These comparisons are then used to determine whether successive scanned pages belong to the same document (In **Liu** – see Column 7, Lines 55-62).

These teachings in Lui would be interpreted by one of ordinary skill in the art (i.e., a computer programmer who writes code for document scanning systems) to indicate

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that the “overlap areas” include the top, bottom, left and right margins of the scanned pages because the “general layout attributes” comprise **not only** the portions of the pages having text, images, graphs and tables **but also** the white space (i.e., margins) of the scanned pages. One of ordinary skill would also have known that scanned pages having the same, or highly similar, white space likely belong to the same document and scanned pages having dissimilar white space likely do not belong to the same document.

Accordingly, the disputed limitation reads on Liu.

Moreover, the disputed claim language includes not only “*margins*” but also a “*top line*” and a “*bottom line*” as “*registration characteristics*.” As admitted by the Appellant, Lui teaches that the document handling system involves the use of page numbers, page headers, page footers, headings and captions to determine whether the scanned belong to the same document (see *Brief* – Page 7, fourth paragraph). At the time the invention was made, page numbers of scanned documents were located in a “*top line*” or a “*bottom line*” of the documents. Similarly, page headers were located in a “*top line*” of the documents and page footers were located in a “*bottom line*” of the documents. Similarly, headings were located in a “*top line*” of the documents.


Accordingly, the disputed limitation reads on Liu.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



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